

TITLE OF THE INVENTION

**ARTICLE OF CLOTHING**

INVENTORS

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## **ARTICLE OF CLOTHING**

### **CROSS-REFERENCE TO RELATED APPLICATION**

**[0001]** This application is based upon French Patent Application No. 03.08368, filed July 9, 2003, the disclosure of which is hereby incorporated by reference thereto in its entirety and the priority of which is hereby claimed under 35 U.S.C. §119.

### **BACKGROUND OF THE INVENTION**

#### **1. Field of the Invention**

**[0002]** The invention relates to an article of clothing, in particular an article of clothing to be worn by a woman, adapted to cover at least partially the upper portion of the body, and designed more specifically for a sports activity.

#### **2. Description of Background and Relevant Information**

**[0003]** An article of clothing of the aforementioned type must meet several requirements and assure, in particular, the support/hold of the bust, including during sporting activities, and ensure a thermal comfort during exertion.

**[0004]** U.S. Patent No. 4,398,538 describes an article of clothing of this type which consists of an outer envelope of the bodice-type made of an elastic material, and of an elastic holding band closed and attached at its upper end around the periphery of the upper end of the bodice, namely the neckline or neck opening, and the underarms, the holding band thus forming a brassiere, in other words a type of flexible brassiere adapted to hold the bust.

**[0005]** Because the brassiere is merely fastened at its upper end to the bodice, it is to some degree suspended and can have a certain freedom of movement separate from the bodice. This article of clothing therefore gives a certain comfort in movements when engaged in sports.

**[0006]** This type of construction, i.e., that of a suspended brassiere, is also used in certain singlets, or jersey shirts, such as undershirts, that cover only the upper portion of the body, in which case the brassiere is most often provided with straps that are also fastened to the singlet in the area of the shoulders. This type of garment does indeed provide a certain freedom of movement, as well as a certain support of the bust.

**[0007]** Nonetheless, it has certain drawbacks, particularly a problem of thermal comfort in the area of the entire brassiere zone for supporting the bust, because two thick layers of material are superimposed in this zone, namely that of the brassiere and that of the singlet/outer envelope.

**[0008]** However, this superimposition zone, which includes the back, the bust, and the top of the shoulders, is a zone in which the release of thermal energy is very high during exertion.

**[0009]** The result is a feeling of heat, excessive perspiration, and a substantial thermal discomfort.

**[0010]** In addition, this type of garment, with the brassiere in the form of a band, is very difficult to put on due to the elastic material constituting the brassiere which compresses the breasts during this step.

**[0011]** The larger the user's bust, the more difficult it is to put it on.

**[0012]** Furthermore, the very band-shape of the brassiere presses on the breasts and gives a feeling of compression that is very uncomfortable depending on the bust size.

### **SUMMARY OF THE INVENTION**

**[0013]** An object of the present invention is to overcome the aforementioned drawbacks and to propose an article of women's clothing with means for holding the bust which is more comfortable to wear, does not excessively compress the bust, and is easier to put on while offering a required degree of hold/support.

**[0014]** This object is achieved in the article of clothing according to the invention, which is of the type having an outer envelope and an arrangement to hold/support the bust connected to the outer envelope, wherein the holding/supporting arrangement is attached to the outer envelope by a substantially horizontal seam/stitching in the area of the back, and by at least one substantially vertical seam in the zone located between the two breasts.

**[0015]** In contrast with known constructions having suspended holding/supporting arrangements, the holding/supporting arrangement in the article of clothing according to the invention is attached by seams, such as stitching, to the outer envelope in very limited zones, namely a portion of the back and the front. These seams are designed so as to make the necessary connection with the envelope without having a negative effect on the freedom of movement and ventilation.

**[0016]** In this way, the suppression of attaching seams in the area of the arm holes or underarms allows additional freedom as the holding/supporting portion can be adapted to the morphology of the body independently of the outer envelope, and further allows the possibility of supplemental ventilation in a zone of substantial perspiration.

**[0017]** Likewise, the attaching of the holding/supporting arrangement by at least one vertical seam at the front guarantees a hold over the entire height of the bust, and therefore a better hold.

**[0018]** According to a particular embodiment of the invention, the holding/supporting arrangement has at least two cups that are connected at the front by at least one elastic band and, preferably, the elastic band is made with the material of the outer envelope.

**[0019]** The elastic band allows optimizing stability in the transverse direction, and the fact that this band is made with the material of the outer envelope eliminates a thickness of material and thus improves thermal comfort of the article of clothing.

#### **BRIEF DESCRIPTION OF DRAWINGS**

**[0020]** The invention will be better understood and other characteristics thereof will become apparent from the following description given with reference to the attached schematic drawings, showing, by way of a non-limiting example, a preferred embodiment, and in which:

FIG. 1 is a three-quarter perspective front view of an article of clothing according to the invention;

FIG. 2 is a three-quarter perspective rear view of the article of clothing of FIG. 1;

FIG. 3 is a front view of the holding/supporting portion of the article of clothing;

FIG. 4 is a rear view of the holding/supporting portion of the article of clothing;

FIG. 5 is a view, similar to FIG. 4, in the open position.

### DETAILED DESCRIPTION OF THE INVENTION

**[0021]** As shown particularly in FIGS. 1 and 2, the article of clothing according to the invention primarily includes an outer envelope 10 covering at least the upper portion of the body, and a holding/supporting arrangement 20 arranged inside the outer envelope 10. In the illustrated example, the outer envelope 10 has the shape of a tank top, i.e., a short singlet or jersey shirt 11 having neither collar nor sleeves, covering the bust and provided with mere straps 12.

**[0022]** The shirt 11 can have a slightly loose form so as not to conform to shapes or, on the contrary, be snugly fit.

**[0023]** Because it is an aerated, easy to wear, cool garment that is sought, the shirt 11 will preferably be made of an aerated fabric with a non-adjusted shape, or of an elastic aerated fabric and therefore with a more adjusted shape.

**[0024]** The outer envelope could have another form, for example, it could have straps that are narrower or, on the contrary, wider. Likewise, the shirt could be less revealing and have sleeves and/or be extended downwardly in the form of a dress or suit.

**[0025]** The holding/supporting arrangement 20 includes two cups 21 that can be either cut flat/straight, as shown, or to shape.

**[0026]** Each cup 21 has a cut and volume adapted to receive and support one breast. In this case, each cup 21 has a substantially triangular cut, each cup 21 being preferably made of an elastic material, such as a polyester/elastothane combination. The two cups 21 are connected together at the rear by an elastic back 22 in the form of a band, provided with a known opening and adjusting mechanism 23.

**[0027]** The holding/supporting arrangement 20 also has a common strap of elastic material 24 extending under the lower edge 21a of the cups 21 and under the lower edge 22a of the back 22.

**[0028]** The strap of elastic material 24 is a band made of an elastic material.

**[0029]** Because the back 22 is provided with opening mechanism 23, the band 24 can be made of a material that is much more elastic than what exists currently in brassiere-type garments without an opening, and therefore provides for a better hold/support while it facilitates putting on the clothing.

**[0030]** Furthermore, the adjustment mechanism 23 allows the adjustability of the width of the back 22 and, therefore, better adapts it to the shape of the wearer's morphology, i.e., to the shape of the body.

**[0031]** As shown more particularly in FIGS. 1 and 2, the holding/supporting arrangement 20 is attached only at the front and at the rear of the outer envelope, specifically:

- at the front, by two substantially vertical seams 13 connecting the medial edge of each cup 21 to the envelope 10;
- at the rear by a substantially horizontal seam 15, such as a stitched seam, connecting the upper edge 22b of the back 22 to the outer envelope 10.

**[0032]** As also shown in the drawing figures, each seam 13 is extended in the direction of the armhole zone 18 of the shirt 11 by an oblique seam 14.

**[0033]** As the case may be, the two seams 13 could be reduced to a single seam connecting the zone between the two cups 21 to the outer envelope.

**[0034]** In any case, the seams 13, 14 can be extended toward the bottom of the shirt by two double seams 16 defining a yoke 17, thus conferring a particularly pleasing appearance to the shirt.

**[0035]** In the example shown, an additional band 26 connects the two cups 21 in the front zone of the holding/supporting arrangement 20, so as to ensure good lateral support of the breasts. This band is made of a material that is inextensible at least in the lateral direction.

**[0036]** This band 26 can also be formed by an appropriate portion of the outer envelope 10, which can be constituted, for example, by the upper portion of the yoke 17. In this case, the band 26 is made of a non-extensible fabric or of a polyester/elastothane fabric that is extensible only in one direction, and arranged so as to extend elastically only in the vertical direction, such that the two cups 21 stay connected by a band that is inextensible in the transverse/lateral direction.

**[0037]** As indicated previously, the fact that the seams 13, 14, 15 for attaching the holding/supporting arrangement 20 to the outer envelope 10 are reduced to the minimum and, in particular, are eliminated in the area of the armholes provides for an article of clothing that is much more pleasant to wear, as it adapts better to the morphology and movements of the body, and is also better ventilated.

**[0038]** Furthermore, the opening and adjusting mechanism 23 facilitates putting it on and provides the use of materials that give better support.

**[0039]** the present invention is not limited to the particular embodiments described hereinabove by way of non-limiting examples, but encompasses all similar or equivalent embodiments.